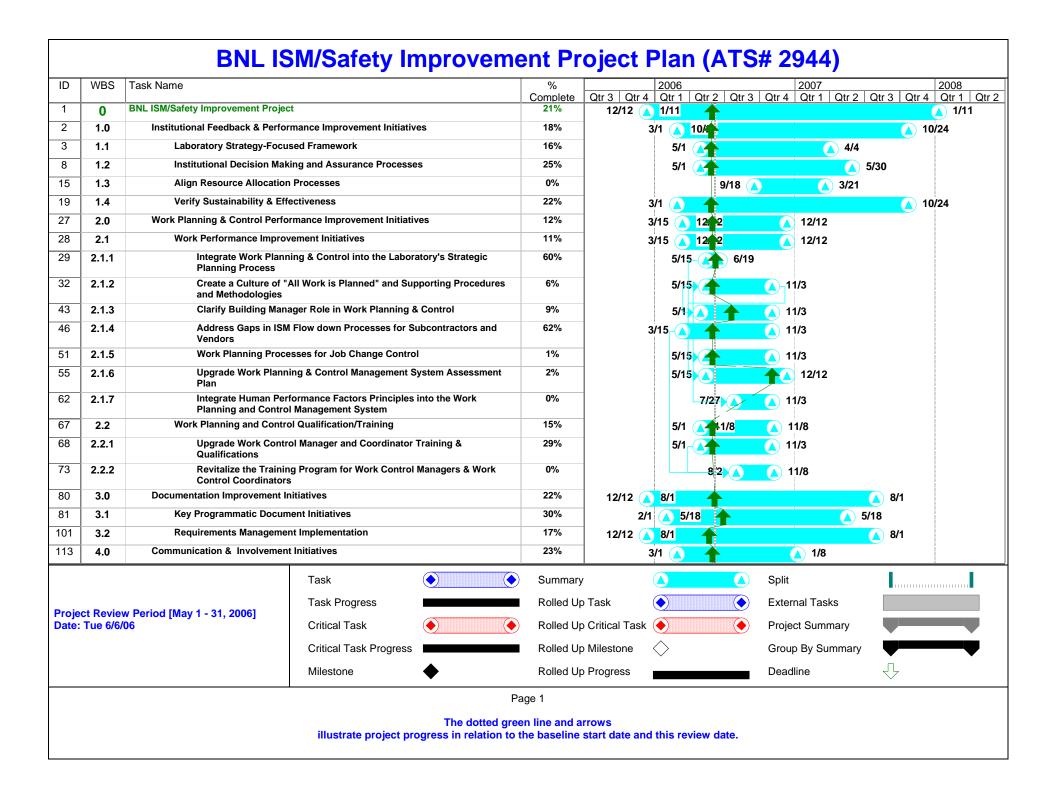


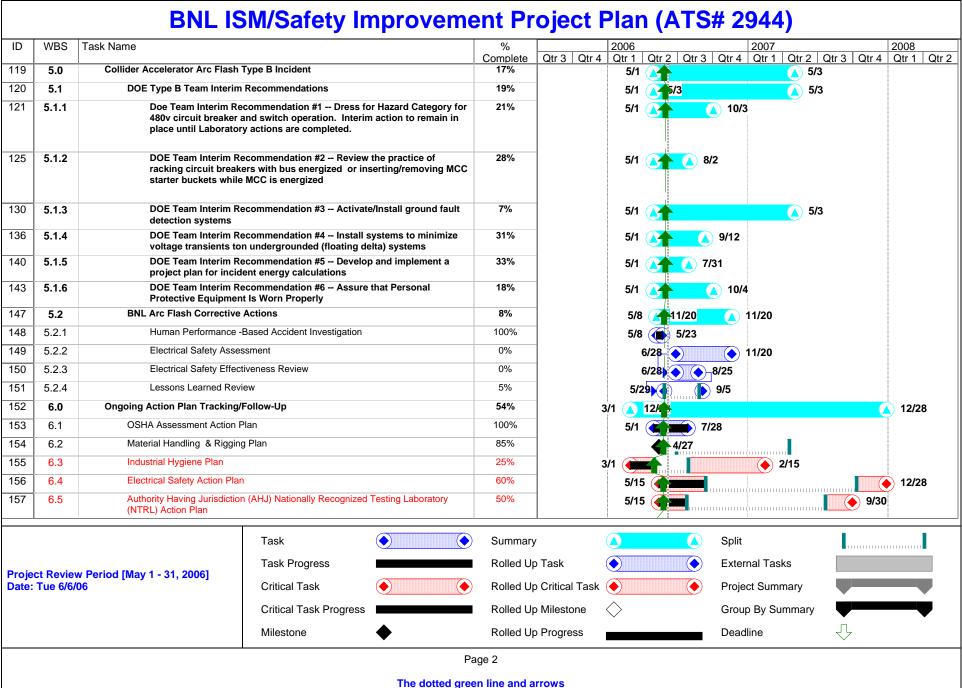
# ISM/Safety Improvement Monthly Project Review

Status Period: 05/01/06 - 05/31/06

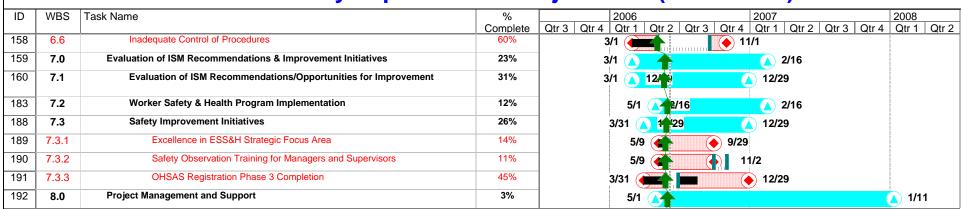


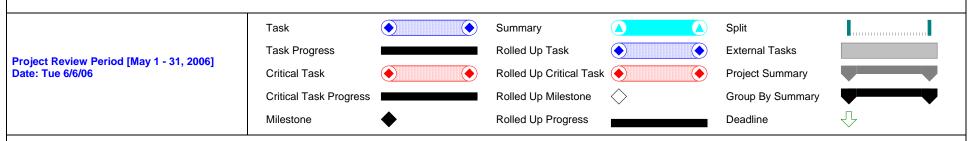






# **BNL ISM/Safety Improvement Project Plan (ATS# 2944)**





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Project Manager: Steven Coleman		Project Status Period: May 1 – May 31, 2006					
Project No. ATS 2944	Account No. 19570						
Project Sponsor: Mike Bebon	% Complete:	21%	Previous Month % Complete_	10%			
Operations	<b>Date:</b> 5/31/2006	Report No	2				
Budget/Cost Status FY 2006		FY 2007 Estimate (E)		This Period			
<b>Total Estimated Costs</b>	\$420K	\$550K (E)		<b>Current Month Actual Costs</b>	\$21.3K		
Costs to Date	\$188K	N/A					
Balance Available	\$232K	N/A					

#### **Project Progress:**

#### WBS 1.0 – Institutional Feedback and Improvement Initiatives

- 1. An overview of the ISM/Safety Improvement Project Plan was presented to the BNL Policy Council, DOE-Brookhaven Site Office and DOE Office of Environment, Safety and Health (ES&H) Evaluations. Project Plan was approved for implementation on May 17, 2006.
- 2. Milestones and corrective actions were assigned to a management champion and entered into the BNL Assessment Tracking System (ATS).
- 3. WBS 1.1.1→ The Policy and Strategic Planning (P&SP) Office kicked off the initial strategic focus area (SFA) planning and performance activities. SFA champions were identified and briefed on expectations. Working groups were established and chartered by the Laboratory Director.
- 4. WBS 1.1.2→ The Quality Management Office (QMO) initiated the realignment of quarterly institutional reporting along the SFA framework. Preliminary mapping of the Performance Evaluation Measurement Plan (PEMP) goals, objectives, measures, targets, Management Systems and corporate assurance measures have been completed and forwarded to the P&SP Office for review and comment. An access database will be developed and implemented in support of this activity.
- 5. WBS 1.2.3→ Began the process of defining and implementing a contractor assurance process. Specific actions taken include the following:
  - a. Performed a gap analysis of DOE's feedback and improvement criteria and review approach documents. Reviewed the Integrated Assessment Program (IAP) against the DOE contractor assurance program requirements. Identified gaps were incorporated into the QMO Integrated Safety Management Project Support Plan and will be tracked to closure as part of the ISM/Safety Improvement Project.
  - b. A draft IAP Management System description, which includes the assurance process, was presented to Senior Management for review and comment.
- 6. WBS 1.2.4→ The Assistant Laboratory Director (ALD) for Environment, Safety, Health and Quality (ESH&Q) kicked off the process of renewing the event/issues (E/I) management process at BNL. A diverse team of BNL Staff (managers, workers, supervisors) was convened to review, discuss and comment on the E/I management process. A draft E/I process has been developed and forwarded to appropriate BNL staff for review and comment.

- 7. WBS 1.2.5→ BNL benchmarked Oak Ridge and Pacific Northwest National Laboratories tracking systems to identify best practices and improvements. Proposed ATS modifications and upgrades were presented to a diverse group of ATS users. Comments and suggested improvements are being considered. Proposed modifications include:
  - a. Prioritizing of actions,
  - b. Indication that Independent Verification/Effectiveness of a closed action is required, and
  - c. Coding of actions (e.g., TIER I items).

#### WBS 2.0 – Work Planning and Control Performance Improvement Initiative

The Work Planning and Control (WP&C) Management System Steward assigned a WP&C point of contact (POC) to projectize and lead the effort on work planning improvements. The POC has begun assembling teams for each of the WP&C functional areas.

- 1. WBS 2.1.4.1→ The ISM flow down processes for vendors, suppliers and subcontractors were revised to include mandatory review and approval of work control managers and coordinators prior to work being performed on site. Draft revisions to contract, purchase orders and procurement document terms and conditions are being reviewed for implementation by appropriate staff. Implementation of the revised process is scheduled to occur in the 4<sup>th</sup> Quarter of FY06.
- 2. WBS 2.2.1.1→ The WP&C POC reviewed current training and qualification requirements for work control managers and coordinators. In coordination with the Training and Qualifications Office, job training assessments and training program improvements are underway.

#### **WBS 3.0 – Documentation Improvement Initiatives**

- 1. WBS 3.1.3.1→ A comprehensive review of the Evaluation of the ISM assessment report was completed. Documentation deficiencies identified were incorporated into the ISM/Safety Improvement Project and assigned with target due dates to responsible management system, program description and subject area responsible managers.
- 2. WBS 3.1.5.1→ SBMS Document guidelines have been revised to include a requirement that all roles and responsibilities in management system, program description, and subject area documents be summarized in the management system has been completed. Publication and communication of new requirements to be completed by the summer of 2006.
- 3. WBS 3.2.1.1→ Development of software tools to facilitate and document verification of requirements is underway. The information technology approach was presented to senior management and approved for implementation. The electronic record of decision tool test/pilot will occur in July 2006.
- 4. WBS 3.2.1.3→ Management system binning based on institutional risk (e.g., Price Anderson Amendment Act applicability, worker safety and health) is complete. The requirements verification of management systems based on institutional risk is underway.

#### WBS 4.0 – Communication and Involvement Initiative

1. WBS 4.1.2→ The ISM Department/Division POC bi-weekly and monthly worker involvement meetings have been re-established. ISM POCs developed an ISM awareness presentation to communicate expectations, program requirements and human performance factors to their department/division staff. These meetings also serve as the forum to communicate project progress and to clarify/articulate ISM Program requirements to ES&H Coordinators, Safety & Health Representatives and Work Control Managers/Coordinators.

2. WBS 4.1.3→ The initial development and implementation of an Operations Forum to evaluate analyze and inform Laboratory Management of significant operational trends is underway. The review and benchmarking of Pacific Northwest Laboratory operations forum process has been completed. A draft BNL process has been developed and presented to the Deputy Director for Operations (DDO). A draft charter, membership and reporting process is in progress. A pilot Operations Forum is scheduled to occur in July of 2006.

#### WBS 5.0 – Collider Accelerator Arc Flash Type B Incident

The DOE Type B investigation is underway. While we wait for the final report, BNL began addressing recommendations provided by the review team. Immediate actions required to assure a safe and healthy work place have been completed. A human performance based accident investigation was completed by Fischer Improvement Technologies (an external consultant.) Improvement opportunities will be incorporated into the ISM/Safety Improvement Project. A rolling safety stand down was held for all BNL Departments/Divisions to discuss the event, lessons learned, and interim safety measures that were put in place.

Other activities that are underway include:

- ♦ An extent of condition review for all systems greater than 208 volts.
- Benchmark practices of racking out circuit breakers with the bus energized and the review of existing procedures
- Conduct electrical and mechanical forensic analysis to determine what caused the arc flash event
- ♦ Review of current practices and use of personal protective equipment (Interim safety measures for operating electrical switches and breakers were put in place by the ESH&Q ALD).

Due to the late development of corrective actions associated with this event and end of the month kickoff of this project, details associated with this activity are not provided. More detail and actions taken on this event will be provided in the next report.

#### WBS 6.0 - Ongoing Action Plan Tracking and Follow Up

- 1. WBS  $6.1 \rightarrow$  All action items from the OSHA Assessment action plan have been completed.
- 2. WBS 6.2→ Independent Audit & Oversight Office performed an effectiveness review of corrective actions associated with the material handling deficiencies. The results indicate a clear commitment by management to improve material handling, and significant progress and improvement were noted. Deficiencies reported have been entered in ATS 3078 and will be periodically reviewed and followed up on as part of the ISM/Safety Improvement Project. All corrective actions are expected to be completed by June 30, 2007.
- 3. WBS 6.6→ A team of managers, supervisors and workers have been assembled to review and revise/update the SBMS Documents and Internal Controlled subject areas to include requirements for periodic reviews, what constitutes a review, documentation of those reviews, and the review of internal controlled procedures when SBMS Documents are revised or changed.. Rollout of new requirements and communication of changes is scheduled to occur in July 2006.

#### WBS 7.0 – Evaluation of ISM and Safety Improvement Initiatives

- 1. WBS 7.1.5→ The Facilities and Operations (F&O) Directorate conduct of operations extent of condition review of operational facilities is underway. The directorate has updated its conduct of operations matrices for its facilities, and forwarded them to the F&O ALD for review and approval.
- 2. WBS 7.2.1 → Gap analyses versus the worker safety and health rule requirements are underway. A Worker Safety and Health working group has been established. Bi-weekly meetings for working group members has been established for ensuring implementation and compliance of rule requirements, and BNL actions required to assure compliance.
- 3. WBS 7.3.1→ A working group was chartered by the Laboratory Director to develop the management expectations and commitment to achieve excellence. The working group has had several meetings and the process of defining excellence in this SFA is underway. Meeting minutes and an overview of this SFA can be found at <a href="http://intranet.bnl.gov/eshq/essh\_working\_group.asp">http://intranet.bnl.gov/eshq/essh\_working\_group.asp</a>.

#### **Risk Assessment/Emerging Risk:**

1. WBS 6.3→ Several actions specified in the Industrial Hygiene action plan are overdue and may have an impact on worker safety and health rule implementation.

#### **Corrective Action(s)**

1. The DDO, ESH&Q ALD and Safety and Health Services Manager met on several occasions to discuss resource requirements and path forward on Industrial Hygiene monitoring. The Safety and Health Services Manager is developing an Industrial Hygiene monitoring schedule to be approved by DOE-BHSO.

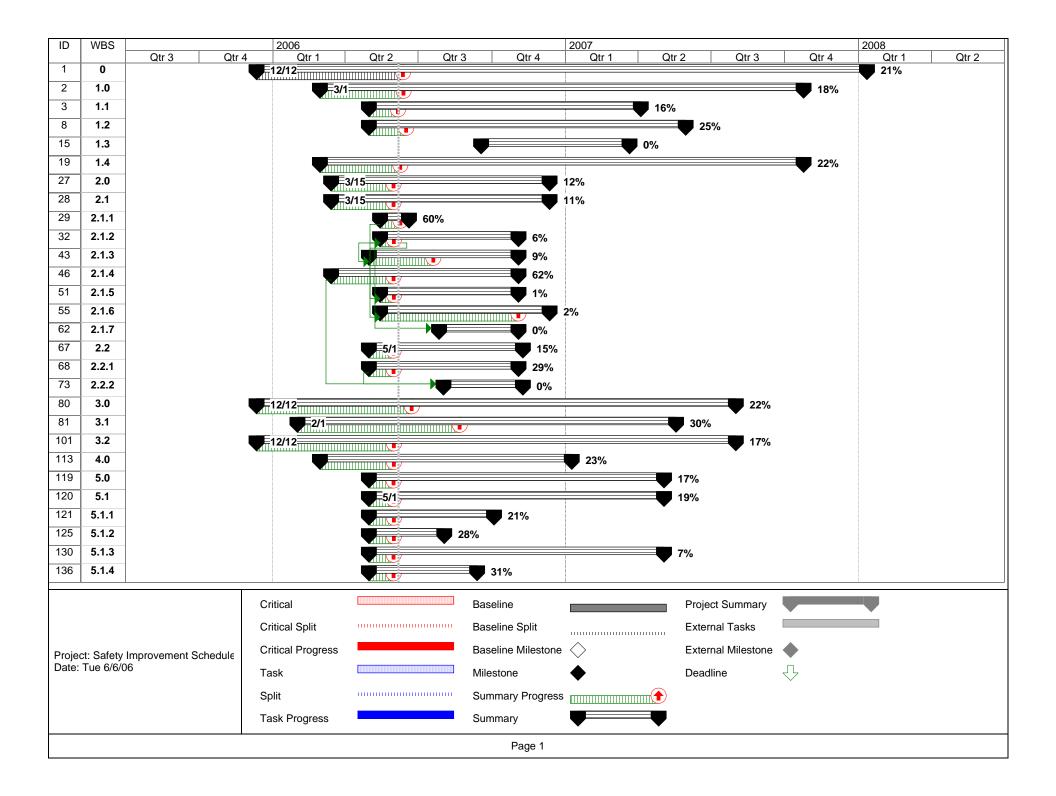
Change Control/Status	of	<b>Changes:</b>
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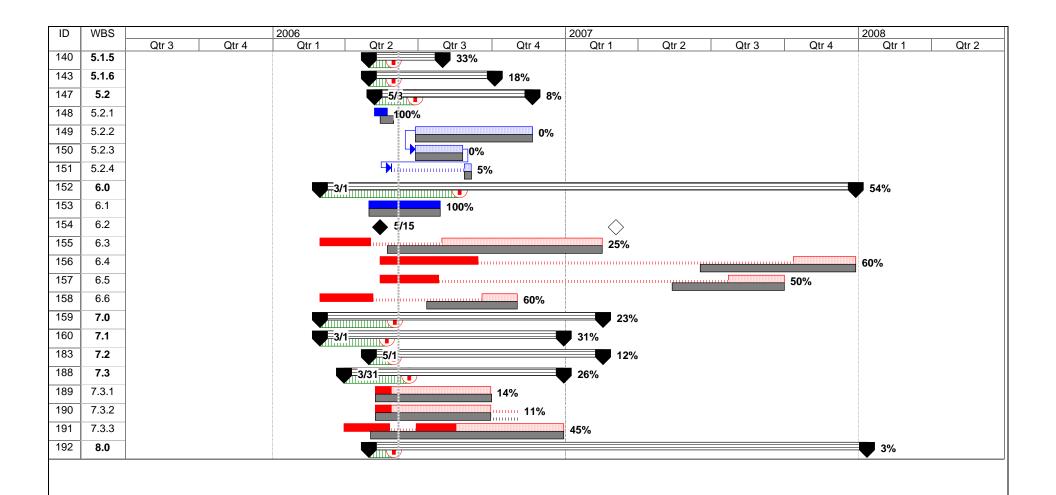
None

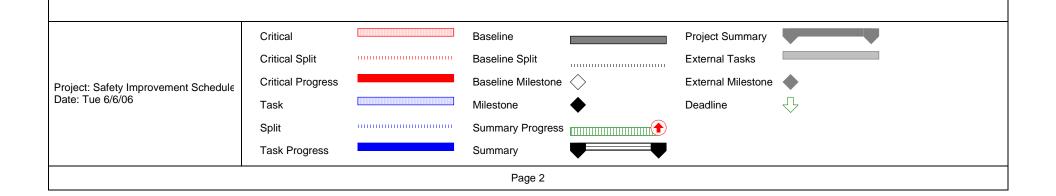
#### **Lessons Learned:**

None

Planned Activities (June 2006)	<b>Baseline Dates</b>	Estimated (E) Completion Dates	Activity % Complete	
1. WBS 1.1.1Complete initial SFA Planning and Performance	06/23/06	06/23/06 (E)	50	
Management Documents				
2. WBS 1.2.5 Upgrade/Re-tool the Assessment Tracking	06/23/06	06/16/06 (E)	54	
System		0.44.549.4.7		
3. WBS 2.1.1.2 Incorporate a strong commitment to work	06/19/06	06/19/06 (E)	0	
planning & control into SFA goals and objectives	06/02/06	06/07/06 (E)	00	
4. WBS 2.1.4.1 ISM Requirements flow down small contracts, service work, and warranty work performed on site	06/02/06	06/07/06 (E)	90	
5. WBS 2.1.4.2 Modify contract, purchase order & other	06/19/06	06/14/06 (E)	50	
procurement terms & conditions to support ISM Flow down	00/17/00	00/14/00 (L)	30	
6. WBS 2.2.1.1 Review current training & qualifications	06/12/06	06/09/06 (E)	65	
requirements for work control managers and coordinators	2 37 2 27 3 3			
7. WBS 5.1.2.1 Review current procedures to evaluate the	06/16/06	06/19/06 (E)	57	
practice of racking breakers into live bus				
8. WBS 5.1.2.2 Benchmark practices for MCC bucket	06/16/06	06/19/06 (E)	0	
insertion/removal				
9. WBS 5.1.4.1 Conduct electrical and mechanical forensic	06/02/06	06/30/06 (E)	80	
analysis of the arc flash event	06/22/06	06/20/06 (E)	0	
10. WBS 5.1.4.2 Design protection systems based on a full understanding of the technical cause	06/23/06	06/30/06 (E)	0	
11. WBS 5.1.5.1 Develop a project plan for remaining	06/23/06	06/23/06 (E)	50	
calculation of the arc flash's incident energy	00/23/00	00/23/00 (E)	30	
12. WBS 5.1.6.1 Review current practices for use of personnel	06/30/06	06/30/06 (E)	40	
protective equipment		,		







# **BNL ISM/Safety Improvement Project Plan (ATS# 2944)**

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ID	WBS	Task Name	% Complete	Actual Start	Baseline Start	Actual Finish	Baseline Finish	Finish Variance
1	0	BNL ISM/Safety Improvement Project	21%	Mon 12/12/05	Mon 5/1/06	NA	Tue 8/19/08	-157 days
2	1.0	Institutional Feedback & Performance Improvement Initiatives	18%	Wed 3/1/06	Mon 5/1/06	NA	Fri 11/2/07	-7 days
3	1.1	Laboratory Strategy-Focused Framework	16%	Mon 5/1/06	Mon 5/1/06	NA	Wed 4/25/07	-15 days
8	1.2	Institutional Decision Making and Assurance Processes	25%	Mon 5/1/06	Mon 5/1/06	NA	Wed 6/20/07	-15 days
15	1.3	Align Resource Allocation Processes	0%	NA	Mon 9/18/06	NA	Wed 4/4/07	-10 days
19	1.4	Verify Sustainability & Effectiveness	22%	Wed 3/1/06	Mon 5/1/06	NA	Fri 11/2/07	-7 days
27	2.0	Work Planning & Control Performance Improvement Initiatives	12%	Wed 3/15/06	Mon 5/1/06	NA	Mon 12/11/06	0.02 days
28	2.1	Work Performance Improvement Initiatives	11%	Wed 3/15/06	Mon 5/1/06	NA	Mon 12/11/06	0.02 days
29	2.1.1	Integrate Work Planning & Control into the Laboratory's Strategic Planning Process	60%	Mon 5/15/06	Mon 5/22/06	NA	Mon 6/19/06	0 days
32	2.1.2	Create a Culture of "All Work is Planned" and Supporting Procedures and Methodologies	6%	Mon 5/15/06	Mon 5/22/06	NA	Thu 11/2/06	0.52 days
43	2.1.3	Clarify Building Manager Role in Work Planning & Control	9%	Mon 5/1/06	Mon 5/1/06	NA	Thu 11/2/06	0.52 days
46	2.1.4	Address Gaps in ISM Flow down Processes for Subcontractors and Vendors	62%	Wed 3/15/06	Mon 5/1/06	NA	Thu 11/2/06	0.52 days
51	2.1.5	Work Planning Processes for Job Change Control	1%	Mon 5/15/06	Mon 5/29/06	NA	Thu 11/2/06	0.52 days
55	2.1.6	Upgrade Work Planning & Control Management System Assessment Plan	2%	Mon 5/15/06	Fri 11/3/06	NA	Mon 12/11/06	0.02 days
62	2.1.7	Integrate Human Performance Factors Principles into the Work Planning and Control Management System	0%	NA	Thu 7/27/06	NA	Thu 11/2/06	0.52 days
67	2.2	Work Planning and Control Qualification/Training	15%	Mon 5/1/06	Mon 5/1/06	NA	Fri 11/17/06	-7 days
68	2.2.1	Upgrade Work Control Manager and Coordinator Training & Qualifications	29%	Mon 5/1/06	Mon 5/1/06	NA	Thu 11/2/06	0.52 days
73	2.2.2	Revitalize the Training Program for Work Control Managers & Work Control Coordinators	0%	NA	Fri 8/11/06	NA	Fri 11/17/06	-7 days
80	3.0	Documentation Improvement Initiatives	22%	Mon 12/12/05	Mon 5/1/06	NA	Tue 8/5/08	-264.5 days
81	3.1	Key Programmatic Document Initiatives	30%	Wed 2/1/06	Mon 5/1/06	NA	Fri 1/12/07	88 days
101	3.2	Requirements Management Implementation	17%	Mon 12/12/05	Mon 5/1/06	NA	Tue 8/5/08	-264.5 days
113	4.0	Communication & Involvement Initiatives	23%	Wed 3/1/06	Mon 5/1/06	NA	Mon 1/8/07	0 days
119	5.0	Collider Accelerator Arc Flash Type B Incident	17%	Mon 5/1/06	Mon 5/1/06	NA	Mon 4/30/07	3 days
120	5.1	DOE Type B Team Interim Recommendations	19%	Mon 5/1/06	Mon 5/1/06	NA	Mon 4/30/07	3 days
121	5.1.1	Doe Team Interim Recommendation #1 Dress for Hazard Category for 480v circuit breaker and switch operation. Interim action to remain in place until Laboratory actions are completed.	21%	Mon 5/1/06	Mon 5/1/06	NA	Thu 9/28/06	3 days

# **BNL ISM/Safety Improvement Project Plan (ATS# 2944)**

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ID	WBS	Task Name	% Complete	Actual Start	Baseline Start	Actual Finish	Baseline Finish	Finish Variance
125	5.1.2	DOE Team Interim Recommendation #2 Review the practice of racking circuit breakers with bus energized or inserting/removing MCC starter buckets while MCC is energized	28%	Mon 5/1/06	Mon 5/1/06	NA	Fri 7/28/06	3 days
130	5.1.3	DOE Team Interim Recommendation #3 Activate/Install ground fault detection systems	7%	Mon 5/1/06	Mon 5/1/06	NA	Mon 4/30/07	3 days
136	5.1.4	DOE Team Interim Recommendation #4 Install systems to minimize voltage transients ton undergrounded (floating delta) systems	31%	Mon 5/1/06	Mon 5/1/06	NA	Thu 9/7/06	3 days
140	5.1.5	DOE Team Interim Recommendation #5 Develop and implement a project plan for incident energy calculations	33%	Mon 5/1/06	Mon 5/1/06	NA	Wed 7/26/06	3 days
143	5.1.6	DOE Team Interim Recommendation #6 Assure that Personal Protective Equipment Is Worn Properly	18%	Mon 5/1/06	Mon 5/1/06	NA	Fri 9/29/06	3 days
147	5.2	BNL Arc Flash Corrective Actions	8%	Mon 5/8/06	Mon 5/15/06	NA	Mon 11/20/06	0 days
148	5.2.1	Human Performance -Based Accident Investigation	100%	Mon 5/8/06	Mon 5/15/06	Tue 5/23/06	Wed 5/31/06	-6 days
149	5.2.2	Electrical Safety Assessment	0%	NA	Wed 6/28/06	NA	Mon 11/20/06	0 days
150	5.2.3	Electrical Safety Effectiveness Review	0%	NA	Wed 6/28/06	NA	Fri 8/25/06	0 days
151	5.2.4	Lessons Learned Review	5%	Mon 5/29/06	Mon 8/28/06	NA	Tue 9/5/06	-0.3 days
152	6.0	Ongoing Action Plan Tracking/Follow-Up	54%	Wed 3/1/06	Mon 5/1/06	NA	Fri 12/28/07	0 days
153	6.1	OSHA Assessment Action Plan	100%	Mon 5/1/06	Mon 5/1/06	Fri 7/28/06	Fri 7/28/06	0 days
154	6.2	Material Handling & Rigging Plan	85%	Mon 5/15/06	Mon 3/5/07	NA	Fri 4/27/07	0 days
155	6.3	Industrial Hygiene Plan	25%	Wed 3/1/06	Wed 5/24/06	NA	Thu 2/15/07	0 days
156	6.4	Electrical Safety Action Plan	60%	Mon 5/15/06	Mon 6/18/07	NA	Fri 12/28/07	0 days
157	6.5	Authority Having Jurisdiction (AHJ) Nationally Recognized Testing Laboratory (NTRL) Action Plan	50%	Mon 5/15/06	Mon 5/14/07	NA	Sun 9/30/07	0 days
158	6.6	Inadequate Control of Procedures	60%	Wed 3/1/06	Wed 7/12/06	NA	Wed 11/1/06	0 days
159	7.0	Evaluation of ISM Recommendations & Improvement Initiatives	23%	Wed 3/1/06	Mon 5/1/06	NA	Tue 2/13/07	3 days
160	7.1	Evaluation of ISM Recommendations/Opportunities for Improvement	31%	Wed 3/1/06	Mon 5/1/06	NA	Fri 12/29/06	0 days
183	7.2	Worker Safety & Health Program Implementation	12%	Mon 5/1/06	Mon 5/1/06	NA	Tue 2/13/07	3 days
188	7.3	Safety Improvement Initiatives	26%	Fri 3/31/06	Wed 5/3/06	NA	Fri 12/29/06	0 days
189	7.3.1	Excellence in ESS&H Strategic Focus Area	14%	Tue 5/9/06	Tue 5/9/06	NA	Sat 9/30/06	0 days
190	7.3.2	Safety Observation Training for Managers and Supervisors	11%	Tue 5/9/06	Tue 5/9/06	NA	Thu 11/2/06	0 days
191	7.3.3	OHSAS Registration Phase 3 Completion	45%	Fri 3/31/06	Wed 5/3/06	NA	Fri 12/29/06	0 days
192	8.0	Project Management and Support	3%	Mon 5/1/06	Mon 5/15/06	NA	Tue 8/19/08	-157 days